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S/110/60/000/009/001/008
EO21/E455

18.6100

AUTHORS: Al'tman, A.B., Candidate of Technical Sciences,
Memelov, V.L., Engineer and Karpova, V.P., Engineer

TITLE: Study of Commutator Bars and Slip Rings Made From
Powders

PERIODICAL: Vestnik elektropromyshlennosti, 1960, No.9, pp.1-5

TEXT. Copper commutator bars and slip rings were made by pressing from the powder, sintering in a protective atmosphere and pressing in a die to give increased strength and more accurate dimensions. Copper-iron alloys and copper-iron bimetals were also made in this way. In its specific electrical resistance, strength and coefficient of linear expansion, copper made by this method was practically the same as that made by the usual rolling process. Table 1 shows the comparison. The rolled copper was somewhat harder (at 20°C). The properties of cermet copper-iron alloy changed in an additive way with increase in iron content. The density increased and the specific resistance and hardness

Card 1/2

88490

S/110/60/000/009/001/008
EO21/E455

Study of Commutator Bars and Slip Rings Made From Powders

decreased. The tensile strength was practically independent of composition. The coefficient of linear expansion of copper-iron bimetals was similar to that of steel, a fact which offers constructional advantages. With increase in temperature, the tensile strength and hardness of metallurgical copper, and of cermets of copper and copper-50% iron alloys all decreased. The biggest decrease was observed in metallurgical copper. Microstructures of cermet copper, copper-50% iron and copper-iron bimetals are shown. The cermet copper-iron consists of a mixture of copper and iron particles. In the bimetal, the good bond between the iron and copper can be seen. Commutator bars made by powder metallurgy were tested in starter motors. After 50000 cycles, the brush wear was 3 to 4.5 mm, the wear on the copper and the copper-iron bars was 0.1 mm, compared with 0.5 mm for normal copper. Copper-iron bimetals also gave good results. There are 2 figures and 3 tables

SUBMITTED March 5, 1960
Card 2/2

AL'TMAN, A.B., kand.tekhn.nauk; MEMELOV, V.L., inzh.; KARPOVA, V.P., inzh.

Study of powder metal collector plates and slip rings. Vest.
elektroprom. 31 no.9:1-5 S '60. (MIRA 15:5)
(Electric machinery—Equipment and supplies)
(Powder metallurgy)

SOLOV'YEV, V.I., kand. khim. nauk; LAVROVA, I.P., kand. tekhn. nauk;
SADIKOVA, I.A., kand. biol. nauk; KRYLOVA, V.V., starshiy
nauchnyy sotrudnik; BUSHKOVA, L.A., starshiy nachnyy sotrudnik;
MERKULOVA, V.K., mladshiy nachnyy sotrudnik; POLETAYEV, T.N.,
mladshiy nachnyy sotrudnik; KARPOVA, V.P., inzh.-khimik;
MAMAYEVA, S.A., tekhnik

Studying some conditions providing for color intensity and
stability in the production of smoked and cooked sausage.
Trudy VNIIMP no.16:183-201 '64. (MIRA 18:11)

L 37747-66 EWP(e)/EWI(m)/EWP(t)/ETI IJP(c) JD/WH

ACC NR: AP6017102

(N)

SOURCE CODE: UR/0226/66/000/001/0041/0045

AUTHORS: Altman, A. B.; Valakina, V. M.; Karpova, V. P.; Memelov, V. L.; Sorokina, V. N.

ORG: All-Union Scientific Research Institute of Electromechanics (Vsesoyuznyy nauchno-issledovatel'skiy institut elektromekhaniki)

TITLE: Dependence between total and surface porosity of sintered materials Cu--Sn--C

SOURCE: Poroshkovaya metallurgiya, no. 1, 1966, 41-45

TOPIC TAGS: copper, tin, carbon, graphite, powder metal compaction, powder metal sintering, *POROSITY, SINTERED ALLOY*

ABSTRACT: The effect of sintering temperature and pressure on the ratio of total (P_T) to surface porosity (P_0) of bronzographite (90% Cu, 9% Sn, 1% C) was investigated. The total porosity was determined by means of the formula

$$P_T = \frac{\gamma_0 - \gamma_1}{\gamma_0} \cdot 100,$$

where P_T is the total porosity and γ_0 and γ_1 are the densities of nonporous and porous bronzographite respectively. The surface porosity was estimated from oil absorption data according to the formula

$$M = \frac{G_2 - G_1}{\gamma_n \cdot V} \cdot 100,$$

Card 1/2

L 37747-66

ACC NR: AP6017102

where M is the oil absorption, G_2 and G_1 are the weights of the specimen before and after oil treatment respectively, ρ_M is the density of the oil, and V is the volume of specimen. The experimental results are presented graphically (see Fig. 1). It

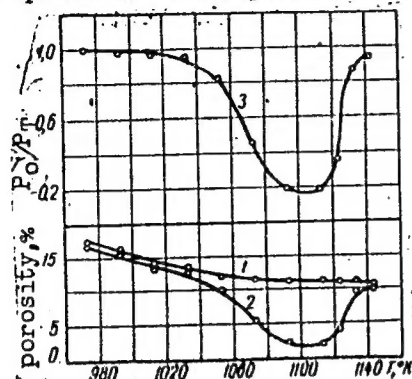


Fig. 1. Dependence of total (1) and surface (2) porosity, and the ratio of surface to total porosity (P_0/P_T) of bronzographite specimen compressed from powdered Cu, alloy Cu--Sn, and C, on the sintering temperature. Sintering pressure 40 k newtons/cm², initial total porosity 19%.

was found that the sintering temperature and pressure affect the total and surface porosity differently. The ratio of surface to total porosity when expressed as a function of the temperature exhibits a minimum, the position of which is shifted to lower temperatures with increase in the specific sintering pressure. Orig. art. has: 2 equations and 4 figures.

SUB CODE: 11/

SUBM DATE: none/

ORIG REF: 007

Card 2/2 *Jo*

KULAKOV, D.V.; OCHKIN, F.V.; ~~KARPOVA, V.V.~~; SIMAKINA, N.V.; YAGUDIN, Z.Kh.; GREBENSHCHIKOVA, N.F.; ~~CHEREMUSHKINA, V.M.~~; YELISEYEV, I.A.; CHERVYAKOVA, A.P.; BEREZOV, A.A.; FEDOTOVA, A.I.; SILKINA, I.V.; NOVIKOVA, V.P.; TANOVA, V.P.; NESVETAYEVA, G.M.; ADSKAYA, V.M.; DRYUCHIN, A.P., otv. red.; KONDRASHOVA, V.I., tekhn. red.
[Economy of Saratov Province in 1960; collected statistics] Narodnoe khoziaistvo Saratovskoi oblasti v 1960 godu; statisticheskii sbornik. Saratov, Gos.stat.izd-vo, 1962. 325 p. (MIRA 15:9)
1. Saratov (Province) Statisticheskoye upravleniye. 2. Nachal'nik Statisticheskogo upravleniya Saratovskoy oblasti (for Dryuchin).
(Saratov Province--Statistics)

KARPOVA, Ye.; POSTOVOYTOVA, L.; TUMANOVA, L.

Let's give high qualifications to sewers. Prof.-tekh. obr. 22 no.3:
22-23 Mr '65. (MIRA 18:7)

KARPOVA, E. D.

Pa - 2T71

USSR/Minerals - Scheelite
Iron

Mar 1946

"Ore-Bearing Contacts of Karamay and Mogol-Tau,"
E D Karpova, 15 pp

"Zap Mineral Obshch USSR" Vol 65, No 3

A study of deposits of polymetals, iron, pyrite, and
scheelite in Middle Asia. The author concludes that
the mineralogical type of the contact does not charac-
terize its possible ore-bearing type.

2T71

AUTHOR

KARPOVA Ye.D.

TITLE

Trachyandesitic Association of Volcanic and Subvolcanic Rocks of the Badam River (the Karjan-Tau Mountain Ridge).

20-4-45/61

PERIODICAL

(Trakhiandezhi tovaia assotsiatsia vulkanogenkkykh i subvulkanicheskikh porod r.ryeki Badam (khrebet Karzhan-Tau) - Russian)
Doklady Akademii Nauk SSSR, 1957, Vol 113, Nr 4, pp 881-884 (U.S.S.R.)

ABSTRACT

The upper palaeozoic volcanic rocks are largely distributed in the Tyan'-Shan'. However, no alkaline effusions were found here. Only two small places have become known so far which have no connection with large areas of occurrence of volcanic rock of the normal alkaline-earth series. The first lies in the reach of the Daubab river on the west cape of the Talassic Ala-Tau (the Authoress ascertained the effusive hypabyssal association of alkaline basaltoids). The second place is situated at the river Badam, Kisil-Ata and Dzhuzum. The volcanic rocks here come to light in a surface of about 30 km² (probably misprint: ought to be km²) in the centre of a meridional synclinalorium, which is formed by lower carboniferous limestones. The northern part is hidden under a cover of mesozoic and tertiary. The volcanic mass is deposited on limestones of the lower carboniferous and is highly dislocated. The angles of inclination are as high as 50-75°. Numerous faults divide the mass into single boulders staggered against each other. Total thickness is about 1500 m. In the cross-section of the Badam mass 3 parts are distinguished: the lower basic one, about 80-200m

Card 1/4
3

A-U Sci Res Inst. for Geology.

Trachyandesitic Association of Volcanic and Subvolcanic
Rocks of the Badam River (the Karjan-Tau Mountain Ridge). 20-445/61

thick, consisting of conglomeration, gritstone and limestone; the middle part, about 600 m thick, of rather monotonous trachylpartite- and trachydacite-like nature and tuffs. The upper part, which the authoress describes in the following, consists of an association of trachyandesite-like and hypabyssal rocks. This part is very clearly stratified and consists of alternating covers of effusion of relatively small thickness (20-70), of pyroclastic rock and thin, as to thickness and extension not penetrating horizons of tuff conglomerations, gritstones and aleurites. In the parts of the cross-section nearest to the top the part of the pyroclastic rocks becomes more important. Total thickness is 600-700 m. The volcanic rocks of this association form different differentiates of a monzonite magma and are probably connected with the activity of a larger volcano of central kind that then was active here. The effusion covers are built up from latite-, trachyandesite- and andesite-porphories as well as from tuffs and tuff breccia corresponding to them as to composition. Relatively few thick (10-35 m) epileuzite covers of the kind of Shoshonit-porphyrite, alkalic trachyte porphyries and phonolites are subordinated to these extended kinds of rock. Among the effusives two-layered and transversal intrusives, deposited at the surface of gigantoporphry-like latite-porphyrites and masses of alkalic trachyte porphyries can be found. All varieties described above of volcanic and hypabyssal rocks are

Card 2/4

Trachyandesitic Association of Volcanic and Subvolcanic
Rocks of the Badam River (the Karjar.-Tau Mountain Ridge).

20-4-45/61
mainly distinguished by the relative relations of the same rock-
forming minerals. Among them the following are typomorphic: Labrador,
anorthoclase, augite (frequently), titanite, meandered olivine and
biotite. Sporadically epidote is of importance. Furthermore several
of the above mentioned kinds of rock are described in detail and their
petrochemical characteristics are given. Plant relics here are badly
preserved and do not permit any determination of age. According to
Vasil'kovskiy there are parallels to the Permian. The author does
not entirely agree with this, but does not deny the probability of
this age. The association under consideration is very different to the
alkalic rocks at the river Daubab and has only a structural connec-
tion with these despite common mineralogical and petrochemical fea-
tures. As to the situation of the Badam volcanic mass it can be said
that it is classified into the changeable Ugam zone of rumpling. The
formation of the Permian volcano here was connected with the extended
faults. In consequence of its activity thin. for the upper Palaeozoic
magmatism of the Tyan'-Shan' not typical effusive and hypabyssal kinds
of rock of the Badam trachyandesite association have developed.
(1 ill., 3 citations from Slavic publications).

Card 3 /4

KARPOVA, Ye. D.

"Intrusive and Ore Complexes in the Tectonic Zones of the Southern Tien Shan"

report presented at the Second All-Union Conf. on Petrography, Tashkent, 19-23
May 1958 (Geokhimiya, 5, '58, p507)

3(5) PHASE I BOOK EXPLORATION 307/1886

"On "vedinchnaya nauchnaya sessiya po metallogenicheskima i prognosty karte, Alma-Ata, 1958.

"Materialy nauchnoy sessii po metallogenicheskima i prognosty karte, doklady. (Materials Presented at the Scientific Session on Metallogenetic and Postulated Ore Occurrence Maps; Reports) Alma-Ata, Izd-vo AN Kazakhskoy SSR, 1958. 318 p. Krata slip inserted. 3,850 copies printed.

M.: A.B. Poguchev; Tech. Ed.: P.P. Alferova.

Sponsoring Agencies: (1) Mendeleya nauk SSSR, (2) Akademika nauk Kazakhskoy SSR, Alma-Ata, (3) USSR. Ministerstvo geologii i obratnyy nedr., (4) Kazakh SSR. Ministerstvo geologii i obratnyy nedr.

Purpose: This book is intended for exploration geologists, mining engineers, and cartographers.

Materials Presented (Cont.)

307/1886

GOVERNANCE: This collection of reports was presented at the United Scientific Session on Metallogeny and Postulated Ore Occurrence Maps convened by the Academy of Sciences in Alma-Ata, December, 1958. The reports deal with various aspects of compiling metallogenetic and postulated ore occurrence maps as well as the methodology and techniques of deriving geophysical exploration data. These reports deal only with non-ferrous metals. Three other reports delivered at the conference but not included in this work were read by Ye. Ye. Zuharov, M. S. Shatalkin, and N. K. Goritskiy. References accompany each article.

TABLE OF CONTENTS:

Tatarinov, P. M. [Vsegi]. Principles and Techniques of Compiling Metallogenetic Maps in the USSR	3
Satbayev, K. I. [AN Kaz. SSR]. Integrated Metallogenetic Postulated Occurrence Maps of Central Kazakhstan	12
Staritskiy, Yu. G., V. L. Masyski, V. I. Dragunov, and M. S. Malish [Vsegi]. Principles of Compiling Metallogenetic Platform Maps	27
Card 3/6	
Orlova, A. V., Ye. T. Shatalov. [IGEM]. Methodological Principles in Compiling Metallogenetic and Postulated Occurrence Maps for Mineral Regions	36
Pravchenko, G. A. [IGEM]. Principles of Compiling the 1:500,000 Metallogenetic Map of the Caucasus	43
Kashay, M. A. [AN AzerbSSR]. Basic Metallogenetic Lineaments and the Metallogenetic Map of Azerbaijan	55
Sergiyev, Ye. B. Metallogenetic Maps of the Eastern Part of Central Asia (scale 1:1,000,000)	59
Matveyenko, V. T. [VNIIGI]. Ye. T. Shatalov. [IGEM]. Metallogenetic Map of Northeast USSR	67
Semenov, M. P. [AN UkrSSR]. Metallogenetic Base and a Map of Postulated Occurrences of Ore Deposits in the USSR	74
Card 3/6	

KARPOVA, Ye.D.

Metallogenetic provinces in the Tien Shan and Pamirs. Sov. geol.
2 no.8:81-101 Ag '59. (MIRA 13:2)

1.Vsesoyuznyy nauchno-issledovatel'skiy geologicheskii institut (VSEGEI)
(Tien Shan--Ore deposits) (Pamirs--Ore deposits)

KARPOVA, Ye. D.

Types of metallogenetic zones in the Tien-Shan and Pamirs.
Zakon.razn.polezn.iskop. 3:418-440 '60. (MIRA 14:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologicheskiiy institut.
(Tien-Shan--Ore deposits)
(Pamirs--Ore deposits)

BETEKHTIN, A.G.; GORSKIY, I.I.; KARPOVA, Ye.D.; KREYTER, V.M.; SOBOLEV, V.S.

In memory of V.A.Nikolaev. Geol.rud.nestorozh. no.4:107-109
Jl-Ag '61. (MIRA 14:10)

(Nikolaev, Viktor Arsen'evich, 1893-1960)

ABDULLAYEV, Kh.M.; ALYAVDIN, V.F.; AMIRASLANOV, A.A.; ANIKEYEV, N.P.;
 ARAPOV, Yu.A.; BARSANOV, G.P.; BELYAYEVSKIY, N.A.; BOKIY, G.P.;
 BORODAYEVSKAYA, M.B.; GOVOROV, I.N.; GODLEVSKIY, M.N.; SHCHEGLOV, A.D.;
 SHAKHOV, F.N.; SHILO, N.A.; YARMOLYUK, V.A.; DRABKIN, I.Ye.;
 YEROFEYEV, B.N.; YERSHOV, A.D.; IVANKIN, P.F.; ITSIKSON, M.I.;
 KARPOVA, Ye.D.; KASHIN, S.A.; KASHKAY, M.A.; KORZHINSKIY, D.S.;
 KOSOV, B.M.; KOTLYAR, V.N.; KREYTER, V.M.; KUZNETSOV, V.A.; LUGOV,
 S.F.; MAGAK'YAN, I.G.; MATÉRIKOV, M.P.; ODINTSOV, M.M.; PAVLOV, Ye.S.;
 SATPAYEV, K.I.; SMIRNOV, V.I.; SOBOLEV, V.S.; SOKOLOV, G.A.; STRAKHOV,
 N.M.; TATARINOV, I.M.; KHRUSHCHOV, N.A.; TSAREGRADSKIY, V.A.;
 CHUKHROV, F.V.

In memory of Oleg Dmitrievich Levitskii; obituary. Sov.geol. 4
 no.5:156-158 My '61. (MIRA 14:6)
 (Levitskii, Oleg Dmitrievich, 1909-1961)

KARPOVA, Ye.G.

Hygienic rating of ash-sludging systems at the Irkutsk power plant.
Gig. 1 san. 21 no.11:90 N '56. (MIRA 10:2)
(IRKUTSK--ASH DISPOSAL)

8156:
S/076/60/034/06/06/040
B015/B061

5.1190

AUTHORS: Mal'tsev, A. N., Kobozev, N. I., Semenova, T. V.,
Karpova, Ye. I. (Moscow)

TITLE: Some Structural Problems of Hydrogenation Catalysis III

PERIODICAL: Zhurnal fizicheskoy khimii, 1960, Vol. 34, No. 6,
pp. 1190-1199

TEXT: The connection between the structure of a hydrocarbon to be hydrogenated, and the structure of the active center of the catalyst was examined. The number of atoms in the active ensemble of the platinum and palladium catalysts were already calculated in the authors' laboratory and by other researchers (Table 1, data on the hydrogenation and dehydrogenation tests). The present examinations took place on the hydrogenation of 1-heptene, cyclohexene, methylcyclohexane, and 1,3-cyclohexadiene (Table 2, refractive indices) in an ethanol solution at 25°C on silica gel with a very thinly applied (0.001-0.02 monatomic) layer of platinum. The experimental diagrams (Fig. 1) of the dependence of the activity of the degree of occupation of the catalyst show three maxima.

Card 1/3

Some Structural Problems of Hydrogenation
Catalysis III

81567
S/076/60/034/06. 740
B015/B061

The hydrogenation thus takes place on three types of active centers, i.e., $[Pt_2]$, $[Pt_{6-7}]$ and $[Pt_{12}]$. The ensemble $[Pt_{12}]$ occurs with relatively high degrees of occupation. Since the above maxima agree for all four hydrocarbons examined, it was established that the structure of the molecule to be hydrogenated is not decisive for the structure of the active center. On the basis of the theory of the active centers, the absolute activity (Table 3), and the activity of the centers for three of the hydrocarbons examined (Table 4) were calculated. The calculated values agree well with the experimental data. The rise in the activity of the platinum ensemble $[Pt_2] \longrightarrow [Pt_{12}]$ is explained by the theory of N. I. Kobozev (Ref. 6), and is due to the self-activation of the catalyst owing to the recuperation of the energy of the hydrogenation reaction. The part of the energy which is recuperated by the catalyst, and which leads to the self-activation of the active centers, depends in some measure on the structure and energetic characteristics of the molecule to be hydrogenated. A. A. Balandin, L. A. Nikolayev, N. A. Reshetovskaya, A. A. Lopatkin, V. I. Shekhobalova, V. P. Lebedev, V. M. Gryaznov, A. V. Frost, D. V. Sokol'skiy, K. I. Stender, N. I. Shcheglov,

Card 2/2

Some Structural Problems of Hydrogenation
Catalysis III

81567
S/076/60/034/06/06/040
B015/B061

A. V. Bukhman, and Yu. G. Lapin are mentioned in the text. There are
7 figures, 4 tables, and 15 references: 14 Soviet and 1 German.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova
(Moscow State University imeni M. V. Lomonosov)

SUBMITTED: June 30, 1958

Card 3/3

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VOYNO-YASENETSKIY, M.V.; KARPOVA, Ye.M.

Nature of focal changes in the spleen in relapsing fever. Arkh.
pat. 21 no.11:30-38 '59. (MIRA 13:12)
(SPLEEN) (RELAPSING FEVER)

KARPOVA, Ye. M. (Lugansk)

Pneumonia in recurrent typhus. Arkh. pat. no.6:17-21 '62.
(MIRA 15:7)

1. Iz laboratorii infektsionnoy patologii (zav. - prof. M. V. Voyno-Yasenetskiy) otdela patologicheskoy anatomii (zav. - akad. N. N. Anichkov) Instituta eksperimental'noy meditsiny AMN SSSR i kafedry patologicheskoy anatomii Luganskogo meditsinskogo instituta.

(PNEUMONIA) (RELAPSING FEVER)

VOROZHTSOV, N.N., mladshiy; GERASIMOVA, T.N.; KARPOVA, Ye.N.; LISENKOVA,
G.S.

Preparation of 5-nitro-1,4-naphthoquinone and its condensation
with dienes. Zhur. VKhO 5 no.4:474-475 '60. (MIRA 13:12)

1. Moskovskiy khimiko-tekhnologicheskii institut imeni D.I.Mendeleeva.
(Naphthoquinone) (Olefins)

5.3610

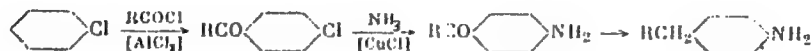
78304
SGT/19-30-3-58/69

AUTHORS: Nikolenko, L. N., Karpova, Ye. N., Khodak, V. A.,
Chirakadze, G. G., Borovik, V. P.

TITLE: Investigation of Aromatic Compounds With a Long Side
Chain. III. Reduction of Alkyl 4-Aminophenyl Ketones
According to Modified Kishner's Method

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol 30, Nr 3, pp 1028-
1031 (USSR)

ABSTRACT: This is a continuation of the previous work (L. N.
Nikolenko, K. K. Babiyeviskiy, ZhOKh, 25, 2231, 1955)
on preparation of aniline homologs according to the
following scheme:



Card 1/6

Investigation of Aromatic Compounds With
a Long Side Chain. III. Reduction of
Alkyl 4-Aminophenyl Ketones According to
Modified Kishner's Method

78304

SOV/79-30-3-58/69

A series of alkyl 4-chlorophenyl ketones (see Table 1)
was obtained by the condensation of aliphatic acid
chlorides with chlorobenzene in the presence of $AlCl_3$.

The reaction mixture was kept for 2 hr at 20-22° and 1
additional hr at 100°. The alkyl 4-aminophenyl ketones
shown in Table 2 were obtained by ammonolysis of the
corresponding alkyl 4-chlorophenyl ketones. 4-Alkylanil-
ines shown in Table 3 were obtained by reduction of the
corresponding alkyl 4-aminophenyl ketones with hydrazine
hydrate according to the modified Kishner method. There
are 3 tables; and 9 references, 1 U.S., 3 U.K., 2
Japanese, 3 Soviet. The 4 U.S. and U.K. references are:
E. Cline, E. Reid, J. Am. Chem. Soc., 49, 3152 (1927);
G. Baddeley, J. Kenner, J. Chem. Soc., 303 (1935);
W. J. Hickinbottom, A. C. Waine, J. Chem. Soc., 1558
(1930); W. J. Hickinbottom, J. Hickinbottom, J. Chem.
Soc., 1119 (1937).

Card 2/6

70384, 307/70-30-3-50/77

Table 1. Alkyl 4-nitrophenyl ketones $p\text{-RCOC}_6\text{H}_4\text{Cl}$.

Key: (a) Yield (%); (b) mp; (c) mp of 2,4-dinitrophenyl-hydrazone.

R	a	b	c
C_4H_9	80	32-32.5	175-175.3°
C_6H_{13}	94	44.5-65.5	150-151
C_8H_{17}	97	58-58.5	134-135
$\text{C}_{10}\text{H}_{21}$	98	46.5-47	103.5-104.5
$\text{C}_{11}\text{H}_{23}$	81	51.5-52	80.3-80.7
$\text{C}_{12}\text{H}_{25}$	91	69.5-70	100-100.6

Card 3/6

18304, SOV/79-30-3-58/69

Table 2. Alkyl 4-aminophenyl ketones $p\text{-RCOC}_6\text{H}_4\text{NH}_2$.

Key: (a) Yield (%); (b) mp.

R	a	b
C_8H_{13}	95	90-90.5
C_8H_{17}	98	91-92
$\text{C}_{10}\text{H}_{21}$	98	101.5-102
$\text{C}_{13}\text{H}_{27}$	98	101-101.5
$\text{C}_{17}\text{H}_{33}$	95	102-102.5
$\text{C}_{15}\text{H}_{31}$	99	99-100

Card 4/6

70504, SOV/79-30-3-58/69

Table 3. 4-Alkylanilines $p\text{-RC}_6\text{H}_4\text{NH}_2$. Key: (a) Yield (%); (b) bp (pressure in mm) and mp.

R	a	b
C_9H_{19}	80	191-196 (16)
$\text{C}_{11}\text{H}_{23}$	85	167-168 (3) mp 19.5-20
$\text{C}_{14}\text{H}_{29}$	98	mp 41.5-45

Card 5/6

. Investigation of Aromatic Compounds With
a Long Side Chain. III. Reduction of
Alkyl 4-Aminophenyl Ketones According to
Modified Kishner's Method

78304
SOV/79-30-3-58/69

ASSOCIATION: D. I. Mendeleyev Moscow Institute of Chemical Technology
(Moskovskiy khimiko-tekhnologicheskii institut imeni
D. I. Mendeleyeva)

SUBMITTED: January 12, 1959

Card 6/6

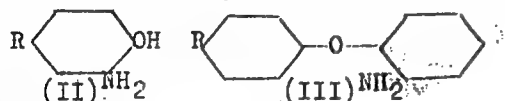
S/079/60/030/04/65/080
B001/B011

AUTHORS: Nikolenko, L. N., Karpova, Ye. N., Vorozhtsov, G. N.,
Sergeyev, V. A., Ivanova, M. Ye.

TITLE: Investigation in the Field of Aromatic Compounds With a Long
Side Chain. IV. Synthesis of Nitro- and Amino-substituted
4-Tert-butyl-, 4-Isooctyl- and 4-(α,α -Dimethyl-benzyl)-phenols

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol. 30, No. 4, pp. 1336-1339 ✓

TEXT: As of late, some alkyl phenols are being used as intermediates for dyes. It was of interest to use for this purpose p-tert-butyl-(I a), p-isooctyl phenol (I b) and 2-(p-oxyphenyl)-2-phenyl propane-4-(α,α -dimethyl benzyl)-phenol (I v), which are commercially produced in large quantities. From among the products obtained from these phenols, 2-amino-4-alkyl phenols (II) and 2-amino-4'-alkyl diphenyl ether (III) are particularly important.



Card 1/3

Investigation in the Field of Aromatic Compounds S/079/60/030/04/65/080
With a Long Side Chain. IV. Synthesis of Nitro- B001/B011
and Amino-substituted 4-Tert-butyl-, 4-Isooctyl- and 4-(α,α -Dimethyl-benzyl)-
phenols

Nitration (Ref. 2) of tert-butyl-, isooctyl- and dimethyl benzyl phenol was carried out with 28.8% nitric acid in benzene at 10-15° (yield 79-84%). Nitro-substituted derivatives of diphenyl ether were obtained by reaction of potassium phenolates with o-nitrochloro-benzene at 160-170° in the presence of copper as a catalyst (Ref. 3), with the tert-butyl-, isooctyl- and dimethyl benzyl group entering the para-position to the ether group. The reduction of the reaction temperature to 105°, recommended in publications, with a protracted heating (50 h instead of 4-5 h), without using copper (Ref. 4), gave rise to much smaller yields. The reduction of the homologs of 2-nitrodiphenyl ether and o-nitrophenol into the corresponding amines took place (in a more advantageous manner than by the usual procedure with cast-iron chips in electrolytic medium) with hydrogen on the nickel skeleton catalyst at normal pressure and room temperature. There are 1 table and 6 references, 2 of which are Soviet.

Moscow Inst. Chem. Technology and D. I. Mendeleev

Card 2/3

NIKOLENKO, L.M.; YEREMINA, O.I.; KARPOVA, Ye.N.; MIKHAYLOVA, I.F.;
KOBIRINA, L.S.

Synthesis and properties of acid monazo dyes. Zhur.prikl.khim.
33 no.7:1617-1623 J1 '60. (MIRA 13:7)
(Azo dyes)

NIKOLENKO, L.N.: KARPOVA, Ye. N.; KOBRINA, L.S.

Aromatic compounds with a long side chain. Part 6: Synthesis
of *p*-sec-alkylanilines. Zhur. ob. khim. 31 no.4:1266-1269
Ap '61. (MIRA 14:4)

1. Moskvoskiy khimiko-tekhnologicheskii institut imeni D. I.
Mendeleeva.

(Aniline)

NIKOLENKO , L.N.; KARPOVA, Ye.N.

Interaction of aliphatic-aromatic ketones with nitric acid. Zhur.
ob.khim. 34 no.1:358-359 Ja '64. (MIRA 17:3)

1. Moskovskiy khimiko-tekhnologicheskij institut imeni Mendeleeva.

NIKOLENKO, L.N.; CHISTYAKOVA, A.V.; KARPOVA, Ye.N.; KABANOVA, S.A.

Study of aromatic compounds with a long side chain. Part 10:
preparation of 3-amino-4-chloroalkylbenzenes. Zhur. ob. khim.
34 r. 12:4032-4037 D 104 (MIRA 18:1)

1. Moskovskiy khimiko-tehnologicheskii inatitut imeni D.I.Men-
deleyeva.

BARG, TS.M.; KARPOVA, Ye.P.

Effect of injections of mercury preparations on the biological
activity of the blood. Uch.zap. UEIGH 5:263-267 '62
(MIRA 16:11)

*

KARPOVA, Ye.S. (g. Kurgan)

Work training of students. Biol. v shkole no.1:83 Ja-F '63.
(MIRA 16:6)

(School gardens)

TECHATNIKOV, Boris Mikhaylovich; GOSSEN, Ervin Frantsovich;
KARPOVA, Ye.S., red.

[New agricultural machinery for erosion control and its
adjustment] Protivoceroziinaia tekhnika i ee regulirovaniye.
TSelinograd, Red.izd-va "Kolos" po tselinnyim raionam, 1964.
22 p. (NIR 1815)

KOSAYA, G.S.; KARPOVA, Ye.V.; KASATKINA, A.V.

Sulfate pulping of mixed conifer wood and hardwood. Bum. prom. no.
2:3-5 F '64. (MIRA 17:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut tsellyulozno-bumazhnoy promyshlennosti.

KARPOVA E. V.

USSR / Microbiology. Medical and Veterinary Microbiology. F-5

Abs Jour: Referat Zh.-Biol., No 6, 25 March, 1957, 21926

Author : Kiselev, P.N., Karpova, E.V.

Inst :

Title : The Effect of Previous Action of Penetrating Rays on the Organism on the Duration of Bacterial Toxins.

Orig Pub: Med. radiologiya, 1956, 2, 23-29

Abstract: Upon introduction of tetanus toxin (TT) 24 hours after irradiation of mice with dosages of 300, 500 and 700 r, the susceptibility of the irradiated animals increased by 33, 48 and 63% by comparison with controls. Upon introduction of TT 7 days after irradiation with 300 r, susceptibility of the irradiated animals was greater than the susceptibility of the controls by 1.8 times; with irradiation of 500 r, by 2.8 times. 14 days after irradiation, the susceptibility of mice to TT decreased somewhat, but was still greater than normal susceptibility of animals by 1.5 - 1.8 times. 21 days after irradiation

Card : 1/2

*Bacteriology Lab - Cent. Sci Res Roentgen-Radiology Inst
Min Health USSR*

USSR / Microbiology. Medical and Veterinary Microbiology. F-5

Abs Jour: Referat Zh.-Biol., No 6, 25 March, 1957, 21926

by 300 r and 30 days after a dosage of 500 r, there was a completely normal susceptibility of the mice to TT. The effect of roentgen rays was also to increase the susceptibility of mice to the B. perfringens toxin; however, this effect was weaker than in the case of TT. It is suggested that the greater effect of irradiation on susceptibility of mice to TT by comparison with perfringens toxin is due to the different mechanisms of action of these toxins. As a result of the effect of irradiation in the TsNS (Central Nervous System), there occurs a broader change than in muscles and in connective tissue.

Card : 2/2

-2-

KARPOVA, E.V.

✓ 1886
SPECIAL PROPHYLACTIC MEASURES AGAINST BACTERIAL TOXINS DURING ACUTE RADIATION SICKNESS.
P. N. Kisilev and E. V. Karpova (Central Research Roentgen-Radiological Inst.). Med. Radiol., No. 4, 31-6 (1956) July-Aug. (in Russian)

2

- Bacterial-serological Lab

KARPOVA, Ye. V.

Characteristics of specific treatment for gaseous gangrene (*Bac. perfringens*) in acute radiation sickness. Vop. radiobiol. 2:373-377 '57. (MIRA 12:6)

1. Sotrudnik Tsentral'nogo nauchno-issledovatel'skogo rentgeno-radiologicheskogo instituta Ministerstva zdravookhraneniya SSSR.
(RADIATION SICKNESS) (GANGRENE)

KISELEV, P.N.; SIVERTSEVA, V.N.; KAPOVA, Ye. V.

Characteristics of the course of infectious processes as effected by
ionizing irradiation of the body. Zhur. mikrobiol. epid. i imm. 29
no.10:21-29 0 '58. (MIRA 11:12)

1. Iz Tsentral'nogo rentgeno-radiologicheskogo instituta Ministerstva
zdravookhraneniya, SSSR.

(MICROCOCCAL INFECTIONS, exper.

eff. of X-rays (rus))

(ROENTGEN RAYS, effects,

on exper. micrococcal infect. (Rus))

KARPOVA, YE. V., KISELEV, P. N., SIVFETSEVA, V. N.

"Basic rules of development of infectious processes upon the
effect of large doses of ionizing radiation on the organism."

report submitted at the 13th All-Union Congress of Hygienists, Epidemiologists
and Infectionists, 1959.

KARPOVA, Ye. V. Cand Med Sci -- (diss) "Effect of preliminary X-ray irradiation of the organism upon the course of bacterial toxicoosis and the peculiarities of its specific prophylaxis and therapy." Len, 1959. 16 pp (Central Sci Res Inst of Med Radiology of the Min of Health USSR), 150 copies (KL, 44-59, 129)

-51-

KISELEV, P.N.; KARPOVA, Ye.V.; SIVERTSEVA, Ye.N.

Disorders of the humoral mechanism in detoxication of the organism
in ionizing radiation injuries. Med. rad. 5 no.11:30-36 N '60.

(MIRA 13:12)

(RADIATION SICKNESS)

(TOXINS AND ANTITOXINS)

KISELEV, P.N.; KARPOVA, Ye.V.

Significance of the changes in the activity of tissue hyaluronidase in disorders of tissue permeability under the effect of ionizing radiation. Med. rad. 10 no.1:54-61 Ja '65. (MIRA 18:7)

1. Tsentral'nyy nauchno-issledovatel'skiy institut meditsinskoy radiologii Ministerstva zdravookhraneniya SSSR, Leningrad.

KARPOVA, Ye.V., dotsent; (Yaroslavl')

Etiology of endemic goiter in certain district of Yaroslavl
Province experimental observations. Probl . endokr. i gorm.
1 no.5:68-75 S-O '55. (MLRA 8:10)

1. Iz gosptal'noy khirurgicheskoy kliniki Yaroslavskogo
meditsinskogo instituta (zav.kafedroy prof.A.A.Troitskiy)
(GOITER,
endemic in Russia, observation of animals from
endemic areas)

KARPOVA, Ye.V., dotsent (Yaroslavl')

Pathomorphology of endemic goiter in the Yaroslavl Province [with
summary in English, p.126]. Probl.endok. i gorm. 3 no.3:75-82
My-Je '57. (MIRA 10:10)

1. Iz kafedry gospiatal'noy khirurgii (zav. - prof. A.A.Ttoitskiy)
Yaroslavskogo meditsinskogo instituta.
(GOITER, pathology,
endemic (Rus))

KARPOVA, Ye. V.

DUBKOVICH, G.A.; SABUROV, Ye.Ya.; KARPOVA, Ye.V.

Fortieth anniversary of Professor V.P. Matreshuk's activities. Vest.
khir. 80 no.1:152 Ja '58. (MIRA 11:4)

(MATESHUK, VLADIMIR PAVLOVICH, 1893-)

KARPOVA, Ye. V. Doo Med Sci -- (diss) "Data ^{for} the study of ~~the~~ endemic goiter
in Yaroslavskaia Oblast." [Yaroslavl, 1958] 31 pp (Kiev Order of Labor Red
Banner Med Inst in Academician A. A. Bogomolets), 200 copies (KL, 44-59, 128)

KARPOVA, Ye.V., prof.; KOSTYUCHENKO, V.I., aspirant.

Experience in reducing the endemic goiter rate in some
populated places in Yaroslavl Province. Gig. sanit. 28
no.2:70-74 '63 (MIRA 17:2)

1. Iz gospi'tal'noy khirurgicheskoy kliniki Yaroslavskogo
meditsinskogo instituta.

KISELEV, P.N.; KARPOVA, Ye.V.

Role of the sulfhydryl (SH) groups of proteins in the block and the fixation of the complement. Zhur. mikrobiol., epid. i immun. 41 no.11:43-48 '65. (MIRA 18:5)

1. Tsentral'nyy nauchno-issledovatel'skiy institut meditsinskoy radiologii Ministerstva zdravookhraneniya SSSR.

KARPOVA, Y. L.

SOV/10-59, 4-25/29

X

Velikho, A.A., and Mints, A.A.

The Sixth Conference of Young Scientific Workers of the Institute of Geography AN USSR (Institute of Geography AN USSR)

Izvestiya Akademii nauk SSSR, Seriya Geograficheskaya, 1959, No. 4, pp 152-154 (USSR)

The article covers the Sixth Conference of Young Scientific Workers of the Institute of Geography AN USSR which took place in mid-March, 1958. 35 reports were read by the following scientific workers: I.G. Glikh reported on "Some Genetic Regularities in the Distribution of Atmospheric Precipitation"; V.M. Kotlyakov and S.V. Yartsev commented on structural methods in snow and ice research in the Antarctic region; L.P. Zhiginskaya spoke on the connection between the relief and hydrographic network and the latest tectonic movements in the Northern Trans-Ural area. G.P. Orlovskaya evaluated the

Card 1/5

evaporation according to the water balance method. She also reported on the results of her research on the evaporation problems in the Gulf of Kara-Bozash. I.M. Khabayev and Ye.N. Minayeva reported on the impact of solar radiation on snow during its melting in the Trans-Volga region. A.V. Kashin spoke on snow radiation near the Elbrus Weather Station. Ye.N. Gulyayeva lectured on snow conditions in the mountains of Central Caucasus. N.N. Orlov reported on his new method to measure the amount of snow carried by winds, whereby snow-flakes are recorded by photographic devices. I.M. Khabayev, Ye.N. Gulyayeva and N.N. Orlov reported on the results of their research on the hydrographic conditions near the Zapovednaya Scientific Station. I.M. Khabayev and N.N. Orlov reported on the water discharge and soil without also studied there; K.M. Dreyer and I.N. Stekhanova lectured on how to calculate the maximal spring water discharge in the Yenisey and Lena rivers according to the method of I.M. Khabayev. I.N. Stekhanova lectured on sea levels of the Caspian sea during the V-XIX centuries and Z.I. Martynova on the lake levels in the Turgy depression during 1849-1958. I.N. Stekhanova reported on the rivers and lakes of the Altai mountains. Ye.N. Gulyayeva discussed the results of her research on the valley deposits in the central areas of the Russian Caucasus. I.M. Khabayev lectured on "Torrent-like Phenomena in Daghestan" and A.Ye. Yartsev on "Classification of Torrents in Central Caucasus". A.G. Chikina gave a Geobotanic survey of the Central Urals. Ye.N. Gulyayeva lectured on the division of the Trans-Ural steppe area into single relief types.

Card 2/5

Card 3/5

MYASNIKOV, A.M., st. inzh.; LIKHOLET, S.F., st. inzh.; BIZHAN, B., inzh.; KOMISSAROV, G.S.; KISELEV, F.S., inzh.; TUPIKOV, V.I., st. inzh.; KARPOVA, Z.A., st. inzh.; KLETSEL', M.M., inzh.; MATSKEVICH, A.V., inzh.; PUSTOVOYTOVA, K.S., red.; MOISEYEV, I.N., red.; IVANOVA, Z.V., tekhn. red.

[Hydrological yearbook] Gidrologicheskii ezhegodnik. Lenin-grad, Gidrometeoizdat. 1960. Vol.2. No.7-9. Pod red. K.S. Pustovoitovoi. 1962. 418 p. (MIRA 16:5)

1. Gidrologicheskaya stantsiya Severo-Kavkazskogo upravleniya gidrometeorologicheskoy sluzhby Serafimovich (for Myasnikov).
2. Gidrologicheskaya stantsiya Severo-Kavkazskogo upravleniya gidrometeorologicheskoy sluzhby Kalach-na-Donu (for Likholet).
3. Gidrologicheskaya stantsiya Ryzdorskaya Severo-Kavkazskogo upravleniya gidrometeorologicheskoy sluzhby (for Bizhan).
4. Nachal'nik gidrologicheskoy stantsii Sal'sk Severo-Kavkazskogo upravleniya gidrometeorologicheskoy sluzhby (for Komissarov).
5. Khar'kovskaya gidrometeorologicheskaya observatoriya (for Tupikov).
6. Khar'kovskaya gidrologicheskaya stantsiya (for Karpova).
7. Saratovskaya gidrologicheskaya stantsiya (for Kletsel').
8. Gidrologicheskaya stantsiya Kaluga (for Matskevich).

(Hydrology--Tables, calculations, etc.)

KARPOVA, Z. F., NOTKINA, N. G., PUL'KIS, V. A., BABIKOVA, A. D.

"Hygienic Characteristics of Capital Residential Construction
in the City of Stalinsk during the Post-War Period."

report submitted at the 13th All-Union Congress of Hygienists, Epidemiologists
and Infectionists, 1959.

KARPOVA-BENOVA *Ye. I.*

KARPOVA-BENOVA (Muro E. I.). **Грибы сем. Thelephoraceae, собранные в Московской губернии в 1926 году.** [Fungi of the family Thelephoraceae collected in 1926 in the government of Moscow.]—*Materials for Mycol. and Phytopath.*, Leningrad, viii, 2, pp. 77-113, 24 figs., 1931.

In this paper the author gives full macroscopical and microscopical descriptions of 31 species of fungi belonging to ten genera of the Thelephoraceae, which she collected in the government of Moscow in 1926. Several of the species included are well-known parasites of cultivated and forest trees. All the figures illustrating this paper are original.

ASD.11.6 METALLOGICAL LITERATURE CLASSIFICATION

KARPOVA-BENUA, Ye.I.

Poisonous fungi on cotton fiber. Bot.zhur. 39 no.4:488-497 J1-Ag '54.
(MLRA 7:10)

1. Ivanovskiy sel'skokhozyaystvennyy institut.
(Cotton--Diseases and pests) (Fungi, Pathogenic)

KARPOVA-BENUA, Ye. I.

~~Morphology and biology of the poisonous fungus Claviceps paspali~~
Stev. et Hall. (Ad morphologiam et biologiam fungi venenati
Claviceps paspali Stev. et Hall.). Bot.mat.Otd.spor.rast. 10:
166-176 Ja '55. (MLRA 8:7)
(Fungi, Poisonous) (Grasses--Diseases and pests)

KARPOVA-BENUA Ye. I.

USSR/Disease of Farm Animals. Noninfectious Diseases R-2

Abs Jour : Ref Zhur-Biol., No 2, 1958, 2753

Author : Salikov M. I., Karpova-Benua Ye. I., Yefimova N. A
Inst : Ivanov Agricultural Institute
Title : Data of Research on the Etiology of Myoglobinuria in horses

Orig Pub : Sb. nauchn. tr. Ivanovsk. s-kh in-ta, 1956, vyp. 13, 3-10

Abstract : The infection of experimental animals (mice, guinea pigs, rabbits, and colts) with a filtrate from the internal organs of horses and colts who died of myoglobinuria indicated that the disease was not caused by a filtrable virus. Streptococcus virulent to mice and rabbits was isolated as a result of a bacteriological study of the pathological material obtained from carcasses

Card 1/3

USSR/Diseases of Farm Animals. Noninfectious Diseases R-2

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000720910005-7
Abs Jour : Ref Zhur-Biol., No 2, 1958, 2753

Abstract : and from the blood of diseased horses. The infection of colts with the bullion of streptococcus culture indicated that the virus did not induce the disease but only accompanied it. The nutrition factor, that is feeding the animals for a prolonged period of time with coarse and only one kind of feed, plays a leading role in the etiology of the disease. An analysis of the hay found on farms which are favorable to the development of myoglobinuria established a low content of Ca and P in the hay. A micological investigation of samples of hay taken from these farms established the presence of several fungi, cellulose destructive and toxic to the animals (Aspergillus versicolor, A. herbariorum, Acrostalagmus cinabarinus, Chaetium pannosum, Sporodesmium sp.). The authors came to the conclusion that myoglobinuria

Card 2/3

USSR/Diseases of Farm Animals. Noninfectious Diseases R-2

KARPOVA-BENUA Ye. I.

Pathogenicity of the fungus *Myrothecium verrucaria* (Alb. et Schw.) Ditmar for animal organisms. Bot.zhur. 42 no.6:855-866
Je '57. (MIRA 10:7)

1. Vsesoyuznyy sel'skokhozyaystvennyy institut zaochnogo obrazovaniya, Moskva.
(Fungi, Pathogenic) (Food poisoning) (Veterinary medicine)

KARPOVA-BENUA, Ye.I., dots.; ARTEMENKO, Z.N., red.

[Adaptation of fungi to the parasitic existence on plant organisms; manual for students specializing in agronomy, fruit and vegetable growing, economics and farm organization] Prispособlenie gribov k paraziticheskomu sushchestvovaniyu na rastitel'nykh organizmakh; posobie dlia studentov-zaochnikov po spetsial'nosti "Agronomiia," "Plodoovoshchevodstvo," "Ekonomika i organizatsiia sel'skogo khoziaistva." Bal'shikha, Vses. sel'khoz. in-t zaochnogo obrazovaniia, 1963. 16 p. (MIRA 17:8)

GITMAN, I.S.; KARPOVA-BENUA, Ye.I.

Activity of A.A. Tachevskii in the field of the development
of horticulture in our country; on the occasion of the 100th
anniversary of his birth. Bot. zhur. 49 no.2:294-298 F '64.
(MIRA 17:6)

DOBROZRAKOVA, T.L.; KARIPOVA-DEIUA, Ye.I.

Pedagogical activities of A.A. Iachevskii. Trudy VIZR no.23:
112-117 '64. (MIRA 19:2)

LEBEDEV, A.Ye.; ANTONOV, V.K.; TATSIYENKO, P.A.; ARBUZOV, V.A.; NEVOISA, G.O.;
Prinimali uchastiy: ZAPARENKO, V.Ye.; KARPOVETS, B.S.

Experience in the sintering of raw (unconcentrated) "tobacco"
ore. Sbor.trud. UNITM no.21s28-26 '65.

(MIRA 28:11)

L. KARPOTIC

"Planning and accounting must correspond to the advanced technology of production." p. 67. (POLANA, Vol. 9, no. 3, Mar. 1953, Praha, Czechoslovakia.)

SC: Monthly List of East European Accessions, L.C., Vol. 2 No. 7, July 1953, Uncl.

~~SECRET~~
KARPOVICH, A., ZUDOV, A.

Solving the most important problem... Mast. lesa, no. 4:20-21
Ap. '57.

(MIRA 10:10)

1. Nachal'nik Arkhangel'skogo lesopil'nogo zavoda im. Molotova.
2. Glavnyy mekhanik Arkhangel'skogo lesopil'nogo zavoda im. Molotova.

(Sawmills)

KARPOVICH, A. B.

Knowledge gained from equipping and organizing a physics classroom. Moskva, Izd-vo Akademii pedagog. nauk, 1952. 50 p. (Pedagogicheskie chteniia) (53-19495)

QC51.A1K37

KARPOVICH, A.B.

Problems and questions in mechanics. Fiz.v shkole 14 no.2:69-71
Mr-Apr '54. (MLRA 7:2)

1. Gorod Leningrad, 2-ye pedagogicheskoye uchilishche.
(Mechanics--Problems, exercises, etc.)

KARPOVICH, Anatoliy Boleslavovich; BASOV, G.V., redaktor; RUBIN, I.V.
tekhnicheskii redaktor.

[Problems of practical application in the teaching of physics
in pedagogical institutions] Voprosy politekhnicheskogo obu-
chenia v prepodavanii fiziki v pedagogicheskom uchilishche.
Moskva, Gos.uchebno-pedagog.izd-vo Ministerstva prosveshchenia
RSFSR, 1955. 95 p.
(Physics--Study and teaching) (MLRA 8:10)

KARPOVICH, Anatoliy Boleslavovich; ZNAMENSKIY, P.A., professor; GUS'KOV, G.G.
redaktor; MUKHINA, T.N., tekhnicheskiy redaktor

[Collection of problems and questions in physics (classes 8-10)]
Sbornik zadach-voprosov po fizike (VIII-X klassy). Pod red. P.A.
Znamenskogo. Moskva, Izd-vo Akademii pedagog. nauk RSFSR, 1956.
139 p. (MIRA 10:1)

1. Chlen-korrespondent APN RSFSR. (for Znamenskiy)
(Physics--Problems, exercises, etc.)

KARPOVICH, A.B. (Leningrad)

"Collection of problems in physics for grades 8-10 of secondary schools". Reviewed by A. B. Karpovich. Fiz. v shkole 19 no.1:114-116 Ja-F '59. (MIRA 12:3)

1. 321-ya shkola.
(Physics--Textbooks)

KARPOVICH, A. S.

2804. Variation in cholinesterase activity of serum in patients with Botkin's disease (infectious hepatitis). A. S. Karpovich. *Vrach. Delo*, 1955, No. 10, 925-930. *Rezerat Zh. Bio.*, 1958, Abstr. No. 13920. Cholinesterase activity of the blood was determined in 97 patients with infectious hepatitis. The cholinesterase activity of blood serum reflects the dynamics of infectious hepatitis, and also, as in other functional tests, gives an indication of the stage of the disease. The effectiveness of treatment may be judged by cholinesterase activity. (Russian)

F. McKECHNIE

KARPOVICH, B.G., inzh.

Centering device for the SV-12 mortising machine. Der.
prom. 9 no.3:22 Mr '60. (MIRA 13:6)
(Woodworking machinery)

KARPOVICH, B.G., inzh.

Automatic board lifter-transporter. Der.prom. 9 no.6:21 Je '60.

(MIRA 13:8)

(Automatic control) (Furniture industry---Equipment and supplies)

KARPOVICH, B.G., inzh.

Semiautomatic line for trimming boards into sized lengths and rough
dimensions. Der. prom. 10 no. 4:19-20 Ap '61. (MIRA 14:4)
(Woodworking machinery) (Automatic control)

KARPOVICH, B.G., inzh.

New design of furniture drawers. Der.prom. 11 no.3:20-22
Mr '62. (MIRA 15:2)

1. Tsentral'noye proyektno-konstruktorskoye byuro Upravleniya
mebel'noy promyshlennosti Moskovskogo gorodskogo soveta narodnogo
khozyaystva.

(Furniture)

ACC NR: AP6035940

SOURCE CODE: UR/0413/66/000/020/0199/0199

INVENTOR: Zemlyanitskiy, A. N.; Karpovich, B. K.; Motin, I. I.; Stolyar, A. I.;
Nuzhdin, V. V.; Ponomarev, I. V.

ORG: none

TITLE: Centrifugal blower water separator for aircraft ventilation systems.
Class 62, No. 187539

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 20, 1966, 199

TOPIC TAGS: aircraft cabin environment, aircraft cabin equipment, centrifugal blower,
air conditioning equipment

ABSTRACT: An Author Certificate has been issued for a centrifugal blower water separator for aircraft ventilation systems, consisting of a housing with intake apertures and a nozzle; the housing contains a rotating drum with radial blades and has openings along its outer surface. To simplify construction and decrease its size, between the blades and end wall in the back portion of the drum is mounted a guide arranged to direct the flow in the opposite direction; the guide channels air into an outlet duct, which is located along the blower's axis and fastened in the forward part of the housing.

SUB CODE: 01, 13/ SUBM DATE: 06Nov64/

UDC: 629.13.01/06
66.071.7

Card 1/1

NOVOKOVSKIY, M.Ya.; TIMOSHUK, S.A.; KARPOVICH, G.G.; CHIZHOV, N.S.

Enlarging the boom of the "Pioner" crane. Rats. i izobr.predl.v stroi.
no.119:5-6 '55. (Cranes, derricks, etc.) (MIRA 9:7)

KARPOVICH, I. A.

USSR/Chemistry - Photo-Conductivity

Card 1/1

Authors : Vartanyan, A. T., and Karpovich, I. A.

Title : About the photo-conductivity of colored organic films during illumination with visible light

Periodical : Zhur. Fiz. Khim., 28, Ed. 5, 856 - 864, May 1954

Abstract : Experiments to determine the photo-conductivity of colored collodion films during illumination with visible light brought only negative results. Photo-conductivity could not be revealed. The increase in electrical conductivity during illumination with visible light, as observed by many researchers, is not due to the internal photo effect but to the heating of the colored film as result of the absorption of the light energy in the natural color absorption band. Arguments in favor of the electrolytical nature of the electrical conductivity of colored collodion films are presented. Fourteen references: 9-USSR, 2-Hungarian, 3-USA. Table, graphs.

Institution : ...

Submitted : Sept. 21, 1953

KARPOVICH, I. A.

537.311.39:547.535.215
Electrical Conductivity and
Photoconductivity of Phthalocyanines
 —A. T. Vartanyan & I. A. Karpovich
 (D. R. Acad. Sci. U.R.S.S., 1966, Vol. 111, No. 3, pp. 561-563. In Russian.)
 Metal-free phthalocyanines (ph) and their
 Zn- and Mg-phthalocyanine complexes
 were investigated. The specific conductivities
 of ph, ph-Cu and ph-Zn, prepared by
 sublimation in vacuum and subsequent
 heat treatment at 200°, are of the order of
 10^{-14} – 10^{-15} Ω⁻¹cm⁻¹ at room temperature
 and increase with temperature according
 to the formula $\sigma \sim \sigma_0 \exp(-\epsilon_0/2kT)$, where
 $\epsilon_0 \approx 1.7$ – 1.8 eV. The conductivity of
 ph-Mg is about 10^4 times higher, due to
 oxygen impurity; $\epsilon_0 \approx 1.2$ eV. Over the
 range 0°–(50°, the temperature dependence
 of the photocurrent is given by $i_{ph} = \sigma$
 $\exp(-\epsilon_{ph}/2kT)$, where ϵ_{ph} lies between
 0.5 and 0.65 eV. At temperatures below 0°
 the law deviates from the exponential type.
 Optical activation energies lie between .53
 and 1.61 eV, thermal activation energies
 being about 0.2 eV higher.

KARPOVICH I.A.

20-5-20/67

AUTHOR
TITLEVARTANYAN A.T., KARPOVICH I.A.
On the Photoconductance of the Violanthrone (?) and of the
Pyranthrone.

PERIODICAL

(O fotoprovodimosti violantrona i pirantrona.- Russian)
Doklady Akademii Nauk SSSR 1957, Vol 113, Nr 5, pp 1020-1021 (USSR)

ABSTRACT

The paper under review presents the results of the investigations of the photoconductance of layers which are obtained by rubbing-on of the powder of the violanthrone (dark blue indanthrene VO (?)) and of the pyranthrone (golden-orange indanthrene G (?)). The investigation was carried out with the aid of an device that had already been described in an earlier paper. The layers (of a thickness of 0.1 to several microns) were applied to a 'quartz finger' containing platinum electrodes. The photoconductance was investigated in vacuum, although the presence of air does not affect the results in any considerable way. A tungsten incandescent lamp of 100 W was used as source of light, and the light was decomposed by a mirror monochromator with vitreous optical system. The distribution of energy with respect to the wave lengths was determined by means of a thermoelectric pile. The current intensities of the order of magnitude of 10^{-13} a were measured with the aid of a direct-current amplifier.

Several seconds after the layers have been exposed to light, the

CARD 1/3

20-5-20/67

On the Photoconductance of the Violanthrone (?) and of the Pyranthrone.

photocurrent becomes constant and then decreases almost equally fast if the exposure to light is terminated. If the observation is carried on for longer periods, an additional increase in the photocurrent will be frequently noticed. If this long-period exposure to light is suddenly terminated, the photocurrent first of all quickly decreases, but there always remains a remanent photocurrent which decreases only slowly. The photocurrent obeys the Ohm's law, at least at field strengthes up to 4000 V/cm. The dependence of the photocurrent i_p on the intensity L of the exposure to light is described by the mathematical relation $i_p = aL^n$, with a and n denoting

constants. In the layers under investigation, n always remained below 1 and amounted to 0.7 to 0.9, depending on the thickness of the layer and on the intensity of the exposure to light. A diagram enclosed to the paper under review shows the spectral curves of the photosensitivity S of the thin layers of the violanthrone and of the pyranthrone. The optical activation energy was determined with the aid of two different methods, and the results obtained by the authors of the present paper are twice as high than the values given by other authors. This phenomenon probably is caused by

CARD 2/3

20-5-20/67
On the Photoconductance of the Violanthrone (?) and of the
Pyranthrone.

a change of these coloring substances a result of multiple
sublimation.
(2 reproductions)

ASSOCIATION: not given.

PRESENTED BY: A.N. Terenin, Member of the Academy, 10.9. 1956

SUBMITTED: 14.9. 1956

AVAILABLE: Library of Congress.

CARD 3/3

KARP OVICH, I. A.

AUTHORS: Karpovich, I. A., Vartanyan, A. T.

20-1-14/42

TITLE: On the Problem of the Valve-Like Photoelectromotorical Power of the Photoelectric Cells With Dyes (K voprosu o ventil'noy fotoeds fotoelementov s krasitelyami).

PERIODICAL: Doklady AN SSSR, 1957, Vol. 117, Nr 1, pp. 57 - 50 (USSR)

ABSTRACT: The authors carried out experiments in order to explain the meaning of the barrier layers in the photoelectric cells with "longitudinal" illumination. Transparent metal layers (Pt, Au, Rh) are used here as anterior and back electrode, which were applied to quartz plates. The authors here distinguish the following photoelectric cells: The layers of the dye have been applied only on the anterior electrode (type I) or only on the back electrode (type II) or on both electrodes (type III). The photocell was illuminated by visible light of a bulb (300 or 1000 watt). For measuring the photoelectromotorical power (E_{∞}) a direct-coupled amplifier with an inlet resistance of $R_{inlet} = 10^8$ Ohm was used. Pinacyanol, orthochromine T and crystalline violet were investigated exactly. A diagram illustrates the typical dependences of the photoelectromotorical power E_{∞} , of the short-circuit current I_0 and the interior resistance R of the photoelectric cell on the intensity of illumination L . For the dependence $E_{\infty} = E_{\infty}(L)$ the relation $E_{\infty} = A \ln(1 + BL)$, is valid

Card 1/3

On the Problem of the Valve-Like Photoelectromotorical Power of the Photoelectric Cells With Dyes. 20-1-14/42

where A and B denote constants. A further diagram illustrates the volt-ampere dependences of the dark current and the photoelectric current for a photoelectric cell of the type I with pinacyanol. This dependence gives evidence of the existence of a barrier layer. The photoelectric current increases together with the tension in the pass direction and tends towards a saturation; in the barred direction it sinks towards nil. In the case of a photoelectric cell of the type II the pass direction and the barred direction change their parts as against the cells of the type I and vice versa. A photoelectric cell of the type III does not show any rectifying properties, the dark current at small tensions responding to Ohm's law. This result confirms the lack of a barrier layer. The here found results are also valid for photoelectric cells with orthochromine T and with crystalline violet, but they hardly agree with the assumptions on the valve-like nature of the photoelectromotoric power. There is no causative relation between photoelectromotoric power and barrier layer. So far the structure of the barrier layer and the mechanism of the rectifying at the contact dye-metal have not been explained. The photoelectromotorical power exclusively develops from the asymmetry of illumination of both electrodes. It does not depend on the kind of the contact and of the electrode material.

Card 2/3

On the Problem of the Valve-Like Photoelectromotorical Power of the Photoelectric Cells With Dyes. 20-1-14/42

There are 2 figures, and 6 references, 3 of which are Slavic.

PRESENTED: June 1, 1957, by A. N. Terebin, Academician

SUBMITTED: May 24, 1957

AVAILABLE: Library of Congress

Card 3/3

KARPOVICH, I.A., Cand Phys Math Sci -- (diss) "Study of the
semiconductive properties of organic dyes. (Phthalocyanin
and cyanin dyes)." Len, 1958, 14 pp (Len Order of Lenin State
Univ im A.A. Zhdanov) 10: copies (KL, 27-58, 102)

- 12 -

KARPovich, I. A.

76-1-27/32

AUTHORS: Vartanyan, A. T. , Karpovich, I. A.

TITLE: The Semiconductor Properties of Phthalocyanine (Poluprovodnikovyye svoystva ftalotsianinov)
I. Electro- and Photoconductivity of Phthalocyanines in Vacuum and in Oxygen (I. Elektroprovodnost' i fotoprovodimost' ftalotsianinov v vakuume i v kislorode)

PERIODICAL: Zhurnal Fizicheskoy Khimii, 1958, Vol. 32, Nr 1, pp.178-187 (USSR)

ABSTRACT: Here, the investigation results already given by the authors in reference 10 are treated in a more detailed manner. The apparatus, by which the investigations were carried out, has been described already earlier (reference 11). Phthalocyanine without metal (Ft) and phthalocyanine of copper (Ft - Cu) of zinc (Ft - Zn) and of magnesium (Ft - Mg) were investigated. 1.) Electroconductivity. The Ft - Cu- and Ft - Zn layers obtained by means of distillation in the vacuum and submitted to an additional degassing at 200°C, show an infinitely small electroconductivity at room temperature. ($\sigma < 10^{-15} \text{ ohm}^{-1}$). Here, the dependence of electroconductivity of such layers on temperature in the range of about from 60 up to 160°C is shown in a diagram. The variation of electroconductivity according to the temperature can be expressed by the following

Card 1/4

76-1-27/32

The Semiconductor Properties of Phthalocyanine. I. Electro-and Photoconductivity of Phthalocyanines in Vacuum and in Oxygen

equation: $\sigma = \sigma_0 \exp(-\epsilon/2kT)$. At Ft and Ft - Cu $\epsilon = 1,7 \pm 0,1$ eV and at Ft - Zn $\epsilon = 1,8 \pm 0,1$ eV. Rough estimates using an application of extrapolation show in the case of the specific conductivity of these phthalocyanines at room temperature values of the order of magnitude of $10^{-12} - 10^{-13} \text{ ohm}^{-1}\text{cm}^{-1}$. Ft - Mg layers under equal conditions show a conductivity being almost 1000 times greater. Values of about 1,2 eV were obtained for the activation energy. As it is shown in the following work this value is smaller than that one obtained for the optic activation energy. It is expected that the conductivity of the Ft - Mg layer at the experiments carried out here, was an impure one. In the presence of oxygen the conductivity of the Ft - Cu-, Ft - Zn- and Ft - Mg layers increases. The sensitivity of the Ft - Mg layers in relation to the oxygen is as great that a pressure of 0,1 mm of mercury is sufficient to cause an essential increase of the electroconductivity. At room temperature the electroconductivity of the layers treated in oxygen at $150 - 200^\circ\text{C}$ is almost by $10^4 - 10^5$ times greater than in vacuum. At a temperature rise the conductivity increases according to the law: $\sigma = \sigma_1 \exp(-\epsilon_1/2kT)$. However, the value ϵ_1 is essentially smaller than the value ϵ , which was obtained in the vacuum. The value ϵ_1 depends on the oxygen pressure. The

Card 2/4

76-1-27/32

The Semiconductor Properties of Phthalocyanine. I. Electro- and Photoconductivity of Phthalocyanines in Vacuum and in Oxygen

behavior of phthalocyanine complexes in oxygen proves the occurrence of an impure conductivity. The increase of the activation energy of Pt in oxygen is to be attributed to the increase of the energy threshold at the boundaries between the microcrystals. 2.) Photoconductivity. An illumination by visible light of phthalocyanine layers carefully degassed with high isolation properties causes an essential increase of the conductivity. The oxygen also increases the photoconductivity. In layers with oxygen generally does not form a space-charge. A noticeable retardation of the stabilization of the steady photo-current and its decrease after stopping the illumination is observed. The photoconductivity of the layers with oxygen is essentially higher, than that in vacuum. The layers of phthalocyanine free from oxygen have an inertialess photoconductivity. In this case the photoconductivity is linearly related to the intensity of illumination, and exponentially increases at a temperature rise. Some results point to the presence of transition resistances in the phthalocyanine layers which were obtained by the sublimation. Taking into consideration the essential increase of the photoconductivity in the layers with oxygen the conclusion is drawn here that besides the recombination (which causes

Card 3/4

76-1-27/32

The Semiconductor Properties of Phthalocyanine. I. Electro- and Photoconductivity of Phthalocyanines in Vacuum and in Oxygen

the linear dependence of photoconductivity on the illumination intensity) a direct recombination of electrons of the free zone takes place with the holes, and causes the "nonlinear" photoconductivity. It is assumed that the light absorption in the molecular crystals of organic compounds are accompanied by a formation of the excitons being movable in the crystal. There are 9 figures, and 13 references, 8 of which are Slavic.

SUBMITTED: September 20, 1956

AVAILABLE: Library of Congress

Card 4/4

76-32-2-8/38

AUTHORS: Vartanyan, A. T. , Karpovich, I. A. (Leningrad)

TITLE: The Semiconductor Properties of Phthalocyanines (Poluprovodnikovyye svoystva ftalotsianinov)
II. The Spectral Dependence of the Photoconductivity and of the Optical Activation Energy of Phthalocyanines (II. Spektral'naya zavisimost' fotoprovodimosti i opticheskaya energiya aktivatsii ftalotsianinov)

PERIODICAL: Zhurnal Fizicheskoy Khimii, 1958, Vol. 32, Nr 2, pp. 274 - 281 (USSR)

ABSTRACT: The spectral curves of the photoconductivity of phthalocyanines as well as the values of the optical activation energy are given. The method of investigation is already described in Reference 1. The authors investigated phthalocyanine without metal, as well as copper-zinc-, and magnesium-phthalocyanines. It is shown that: 1) - The thickness of the layer and the non-linearity of the photoconductivity in phthalocyanines exercise an essential influence on the shape of the

Card 1/3

76-32--2-8/38

The Semiconductor Properties of Phthalocyanines. II. The Spectral Dependence of the Photoconductivity and of the Optical Activation Energy of Phthalocyanines

spectral curve with regard to the photoconductivity and the results in the determination of optical activation energy. 2) In thin layers the spectral curves of the relative photoconductivity calculated by taking into account the non-linearity of photoconductivity show good coincidence with the absorption curves. 3) The introduction of oxygen into the phthalocyanine layer on the one hand essentially increases the total photoelectric sensitivity, but on the other hand does not exercise any essential influence on the spectral distribution of photo-sensitivity. 4) The $\lambda_{1/2}$ method and the method of the "photo-electric straight line" show close values for the optical activation energy of the phthalocyanines when thin layers are used and when the non-linearity of photoconductivity is taken into account. 5) The optical activation energies obtained for phthalocyanine without metal as well as for copper- and zinc phthalocyanines well agree with earlier determined thermal activation energies. 6) The results obtained here coincide with the earlier investigated scheme of the energy levels in phthalocyanines as well as with the conception on the primary formation of the excitons

Card 2/3

76-32-2-8/38

The Semiconductor Properties of Phthalocyanines. II. The Spectral Dependence of the Photoconductivity and of the Optical Activation Energy of Phthalocyanines

in the case of light absorption. There are 7 figures, and 11 references, 6 of which are Soviet.

SUBMITTED: September 20, 1956

- | | |
|---------------------------------------|--|
| 1. Phthalocyanines--Photoconductivity | 2. Phthalocyanines--Spectra |
| 3. Phthalocyanines--Photosensitivity | 4. Phthalocyanines--Optical properties |

Card 3/3

76-32-3-8/43

AUTHORS: Vartanyan, A. T., Karpovich, I. A.

TITLE: Electrical Conductivity and Photoconductivity of Pinacyanol and Orthochromium T (Elektroprovodnost' i fotoprovodimost' pina tsianola i ortokhroma T)

PERIODICAL: Zhurnal Fizicheskoy Khimii, 1958, Vol 32, No 3, pp 543-553 (USSR)

ABSTRACT: Already in preceding papers, A. T. Vartanyan (Refs 1, 2, 3) determined the photoconductivity of photographic sensitizers and desensitizers. Ye. K. Putseyko (Ref 4) investigated the photoelectric sensitivity of a number of sensitizers by means of the condenser method. The results obtained by Noddach and Meier (Refs 5, 8) according to the method of the "photoelectric straight line" for pinacyanol, as well as by Nelson (Ref 9) in determining the photoconductivity of a number of cyanine dyes, contain contradictions, which can be explained by the results of the preceding paper. The investigations mentioned in the title were performed in vacuum, as well as in the presence of oxygen and steam. Data on the experimental procedure are mentioned. The investigations in the vacuum

Card 1/4

Electrical Conductivity and Photoconductivity of Paracyanol and Orthochromium T

76-32-3-8/43

showed a specific conductivity of both mentioned substances of the order of magnitude 10^{-12} and $10^{-13} \text{ ohm}^{-1} \text{ cm}^{-1}$ and a thermal activation energy of 1.8 ± 0.1 or 2.05 ± 0.1 eV, respectively. The photoconductivity considerably increases illumination, and its temperature dependence is subject to the exponential law, except for temperatures below 40°C , which fact was not exactly investigated. The form of the spectral curve of photoconductivity depends on the thickness of the layer of dye, as well as on the value n in the equation $\Delta\sigma = \alpha L^n$ (Ref 11). This can be mentioned as an explanation, as against those of Nelson (Ref 9), for the obtained "rapid" component photoconductivity for paracyanol. The "slow" component photoconductivity depends on the illumination intensity, where, however, the "nonlinear" course has to be considered (also in observing Nelson's investigations). According to Moss (Ref 13), the optical activation energy can be determined from the spectral curves of the photo-sensitivity, in thin layers from the "long wave limit" as well as according to the "photoelectric straight line" method of Lange (Ref 14). The obtained results agree well with each other, as well as with the thermal activation energies, whereas the latter cannot exactly be determined, and on

Card 2/4